8. MASTER REMOVAL SECTION

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8. Master Removal Section

[Removal and Assembly]

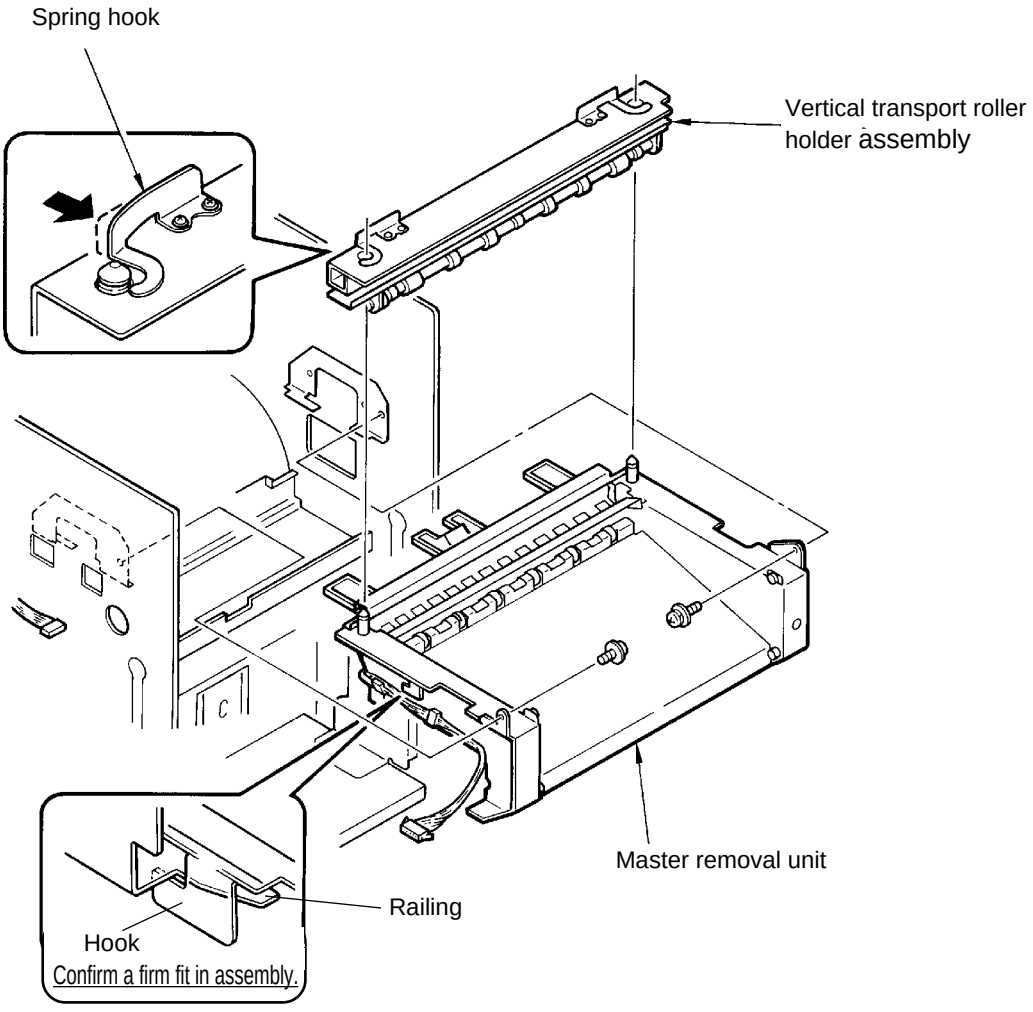
1. Master Removal Unit (4200/4900)

< Removal Procedure >

1. Turn OFF the power and pull out the Master disposal box from the machine.
2. Remove the Back cover and disconnect the wire harness connector of the Master removal unit.
3. Remove two mounting screws on the Master removal unit.
   [Note]
   If required, push two Spring hooks on the Vertical transport roller holder assembly to free the assembly from the Master removal unit.
4. Pull the unit towards the paper feed side to unlock the hooks at the bottom of the unit.
   Tip the unit toward you and take it out towards the paper feed side.

- Precautions in Assembly -

- Pass the wire harness of the Master removal unit through the hole of the side frame of the machine before installing the unit into the machine.
- Make sure to lock the hooks at the bottom of the unit on the railings of the side frames.



2. Master Removal Unit (5900)

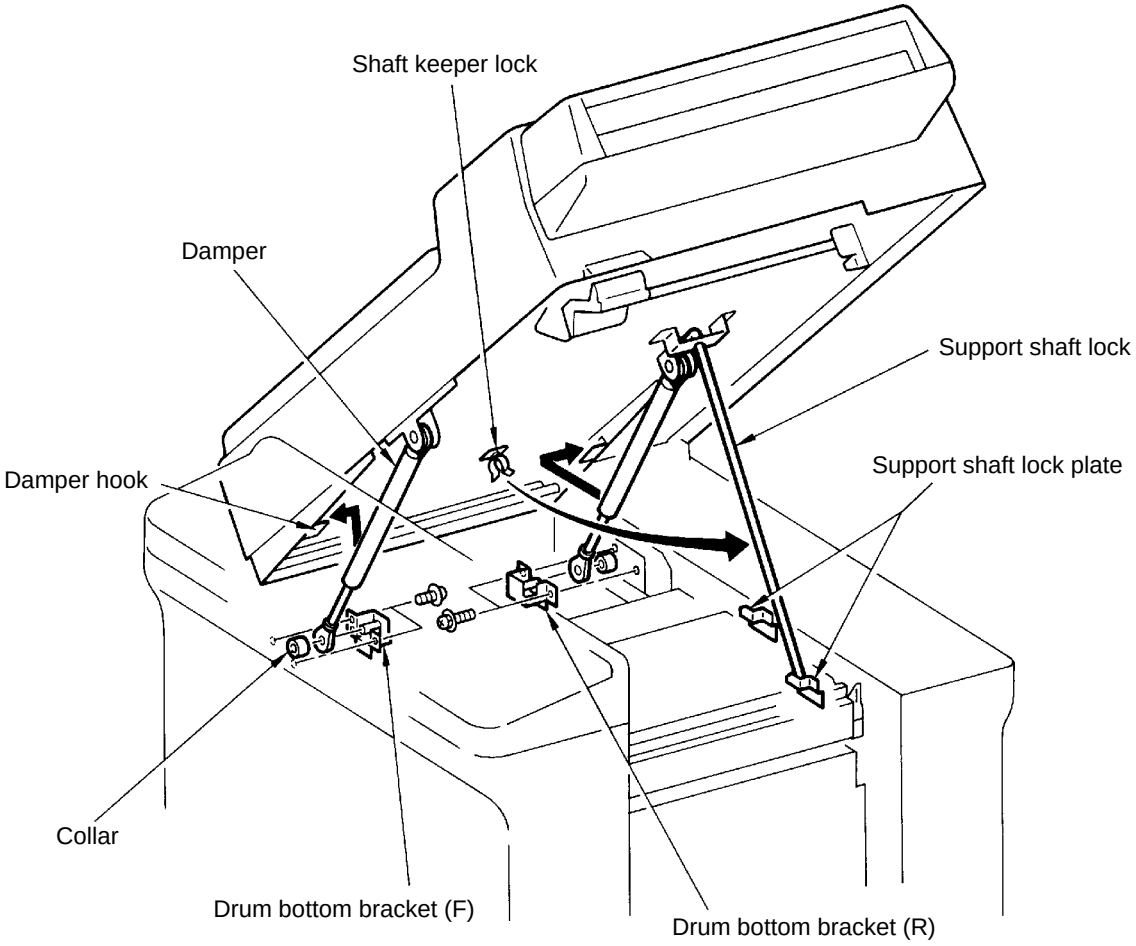
< Removal Procedure >

1. Turn OFF the power and open the Scanner table.
2. Release the Support shaft lock from the Shaft keeper lock and hook it to the lower Support shaft lock plate .
3. Remove the respective two mounting screws on the Damper bottom brackets (F) and (R) and remove the brackets.
   [IMPORTANT]
   Don't drop the collar on the shaft of the bracket located behind the Damper.
4. Hook the Dampers on the Damper hooks at the bottom of the Scanner table.
   [CAUTION]
   Don't open the Scanner table too wide after releasing the Dampers because the machine will be turned over by the weight of the Scanner table.
5. Pull out the Master disposal box from the machine.
6. Remove the Master removal unit, referring to the previous page.

!! VERY IMPORTANT !!

- Precautions in Assembly -

- Attach the Damper bottom brackets to the same positions as before removal because the brackets are different in shape.
- The collar should be inserted between the Damper and the machine side frame.



3. Master Removal Solenoid

< Removal Procedure >

1. Remove the Master removal unit, referring to page VIII-7 or VIII-8.
2. Cut the wire clamper holding the wires of the Master removal solenoid and disconnect the connector of the solenoid.
3. Remove the mounting screw of the Master removal solenoid and remove the solenoid from the unit.
4. Separate the bracket from the Master removal solenoid by removing two mounting screws.

- Precautions in Assembly -

- Secure the solenoid so that the positioning bosses on the bracket can be placed in the middle of the oblong holes of the unit frame.
- Secure the wires of the solenoid with a wire clamper as before removal.

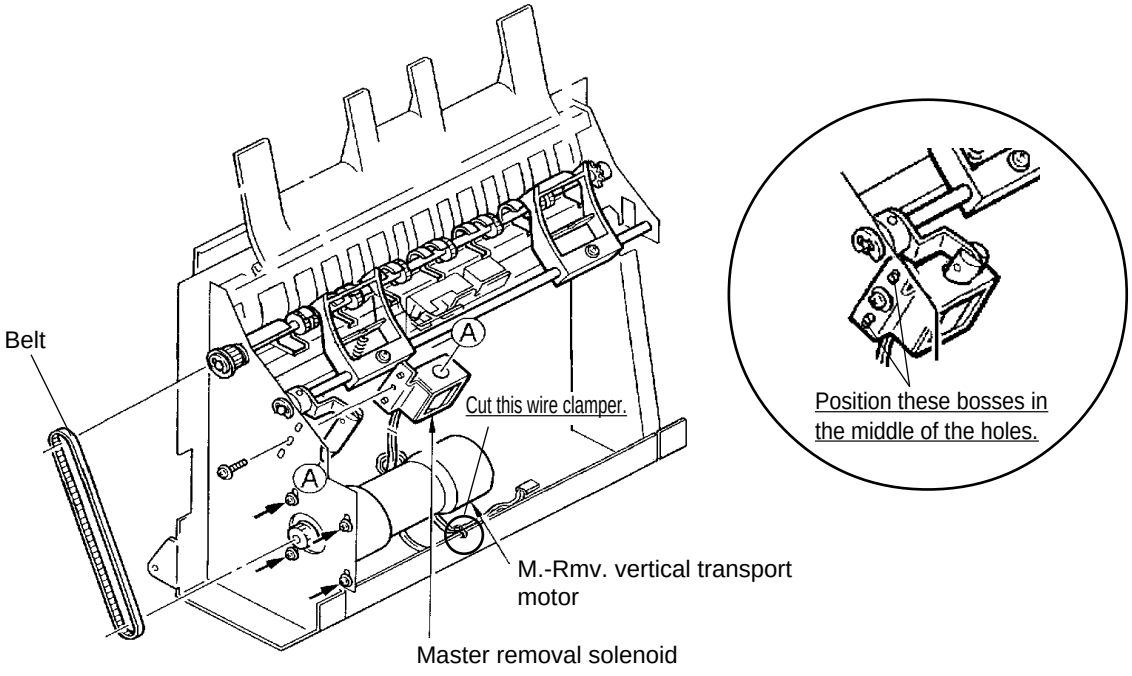
4. M.-Rmv. Vertical Transport Motor

< Removal Procedure >

1. Remove the Master removal unit, referring to the page VIII-7 or VIII-8.
2. Cut the wire clamper holding the wires of the M.-Rmv. vertical transport motor and disconnect the connector of the motor.
3. Remove four mounting screw of the M.-Rmv. vertical transport motor and remove the motor from the unit, releasing the belt.
4. Separate the Duct pulley from the M.-Rmv. vertical transport motor by loosening the allen screw.

- Precautions in Assembly -

- Push the Duct pulley fully on the motor shaft before securing it.
- Apply enough tension to the belt when securing the motor.
- Secure the wires of the motor with a wire clamper as before removal.



5. Master Removal Hook
6. Vertical Transport Roller (Up)

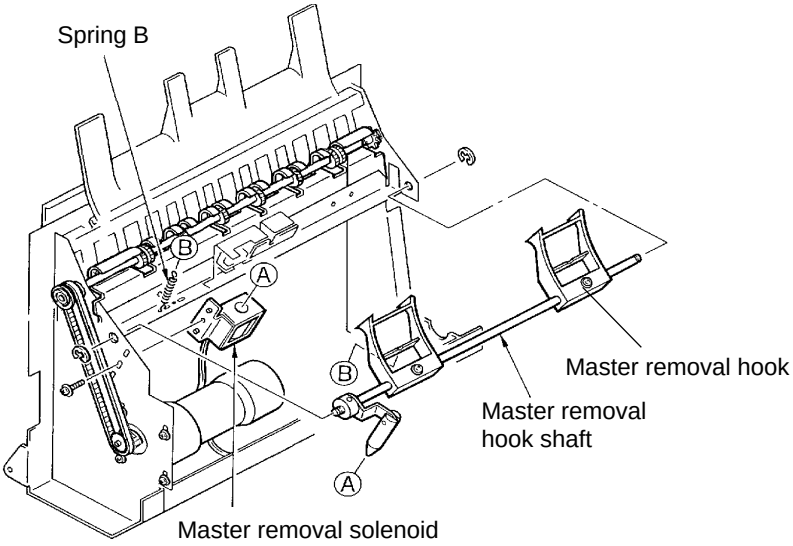
5. Master Removal Hook

< Removal Procedure >

1. Remove the Master removal unit, referring to page VIII-7 or VIII-8.
2. Remove the mounting screw of the Master removal solenoid and set the solenoid aside.
3. Remove the Spring B.
4. Remove E rings at both ends of the Master removal hook shaft and remove the shaft with the Master removal hooks attached.
5. Remove the screw securing the Master removal hook on the shaft and slide it off the shaft.

- Precautions in Assembly -

- Secure the Master removal solenoid so that the positioning bosses on the bracket can be placed in the middle of the oblong holes of the unit frame.
- Always check the projected position of the Master removal hooks after assembly.



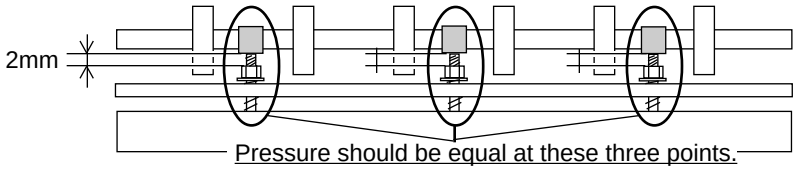
6. Vertical Transport Roller (Up)

< Removal Procedure >

1. Pull out the Master disposal box from the machine and remove the Vertical transport roller holder assembly, referring to the page VIII-5. (The Master removal unit is not required to be removed.)
2. Remove E rings at both ends of the Vertical transport roller (up), and remove metal bearings.
3. Move the Vertical transport roller (up) sideways and remove the roller from the holder assembly.
4. Remove the E ring securing the gear on the shaft and separate the gear from the roller.
   [IMPORTANT]
   Be careful not to lose the parallel pin which is inserted into the shaft when removing the gear.

- Precautions in Assembly -

- Confirm after assembly that the same pressure is applied to the roller at all three points by spring screws.



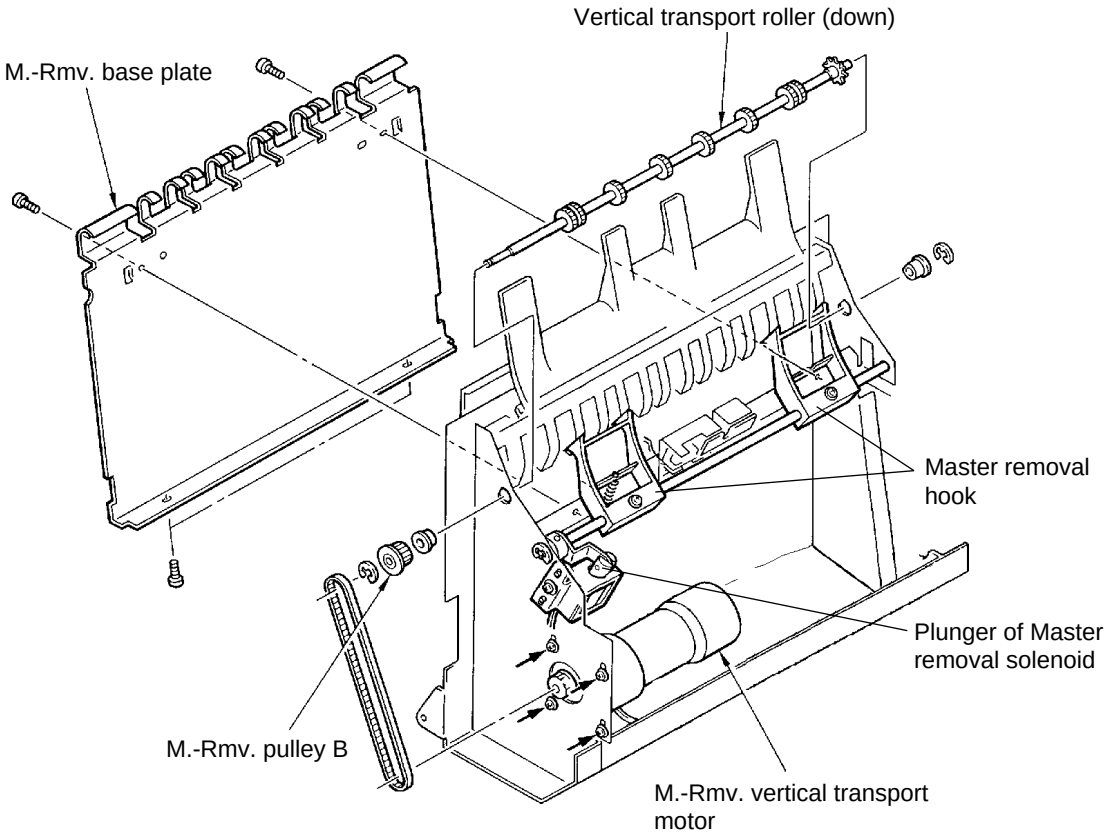
7. Vertical Transport Roller (Down)

< Removal Procedure >

1. Remove the Master removal unit, referring to the page VIII-7 or VIII-8.
2. Remove the Vertical transport roller holder assembly, referring to the page VIII-7.
3. Loosen four mounting screws of the M.-Rmv. vertical transport motor and remove the belt from the M.-Rmv. pulley B.
4. Remove E rings at both ends of the Vertical transport roller (down), and remove the M.-Rmv. pulley B and metal bearings.
5. Remove four mounting screws on the M.-Rmv. base plate and unhook the plate from the shaft of the Vertical transport roller (down).
6. Holding the plunger of the Master removal hooks down to set the hooks off the Vertical transport roller (down) and move the roller sideways to remove it.
7. Remove the E ring securing the gear on the shaft and separate the gear from the roller.
   [IMPORTANT]
   Be careful not to lose the parallel pin which is inserted into the shaft when removing the gear.

- Precautions in Assembly -

- Confirm that the M.-Rmv. pulley B is attached to the shaft in the right direction (the collared side should face outward) because a one-way clutch is built into the pulley.
- Match the positioning holes on the top face of the M.-Rmv. base plate with the bosses on the Master removal unit frame when securing the plate.
- Apply enough tension to the belt when securing the M.-Rmv. vertical transport motor.



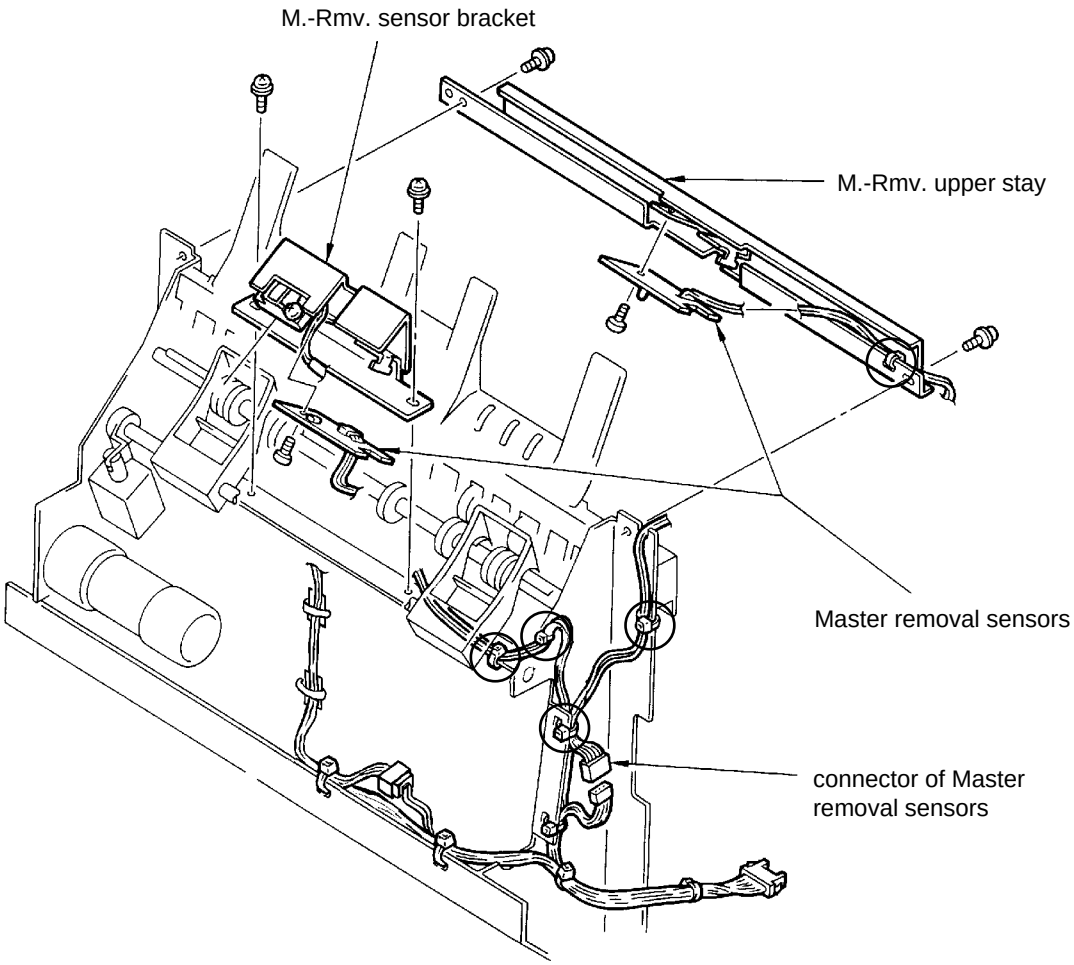
8. Master Removal Sensors

< Removal Procedure >

1. Remove the Master removal unit, referring to page VIII-7 or VIII-8.
2. Remove two mounting screws on the M.-Rmv. upper stay and set the upper stay aside.
3. Remove the mounting screw on the Master removal sensor (send), cut the wire clamper securing the wires of the sensor to the M.-Rmv. upper stay and remove the sensor from the upper stay.
4. Remove two mounting screws on the M.-Rmv. sensor bracket and set the bracket aside.
5. Remove the mounting screw on the Master removal sensor (receive) and remove the sensor from the bracket.
6. Disconnect the Master removal sensor connector and cut the wire clampers securing the sensor wires to the Master removal unit frame.

- Precautions in Assembly -

- The Master removal sensor (send) is the one with a VR attached.
- Match the positioning holes of the M.-Rmv. sensor bracket with the bosses on the Master removal unit stay when securing the bracket.
- Secure the sensor wires with wire clampers (5 points) as before removal, referring to the figure below.



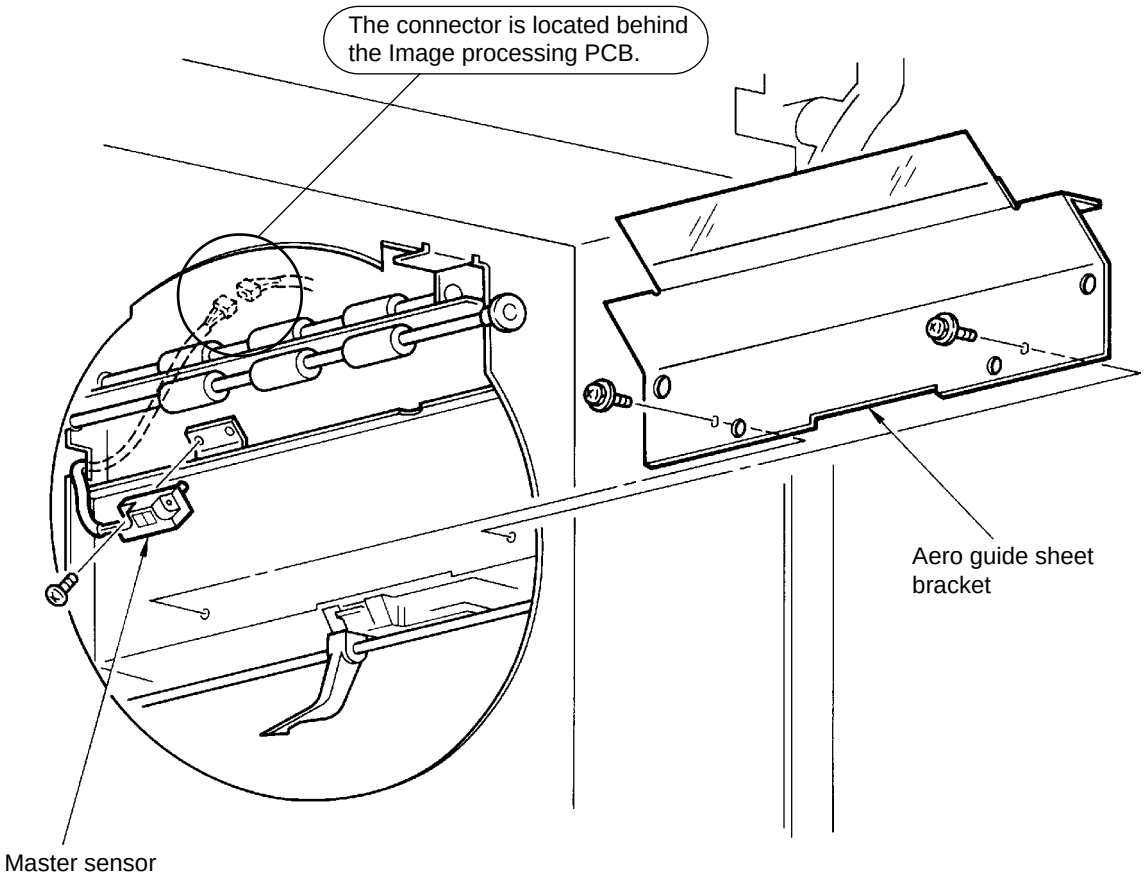
9. Master Sensor

< Removal Procedure >

1. Removethe Drum from the machine.
2. Turn OFF the power and remove the Back cover.
3. Remove two mounting screws on the Aero guide sheet bracket and remove the bracket.
4. Remove 5 mounting screws on the System PCB brackets and set aside the PCB assembly for ease in disconnecting the connector.
5. Disconnect the Master sensor connector and release the sensor wires from the flexible wire clamper.
6. Remove the mounting screw on the Master sensor and remove the sensor from the bracket.

- Precautions in Assembly -

- Take care not to let the wires of the sensor hang behind the Aero guide sheet bracket and Loading pulse motor.
- After assembly, confirm that the connectors on the System PCB and Image processing PCB are securely connected.



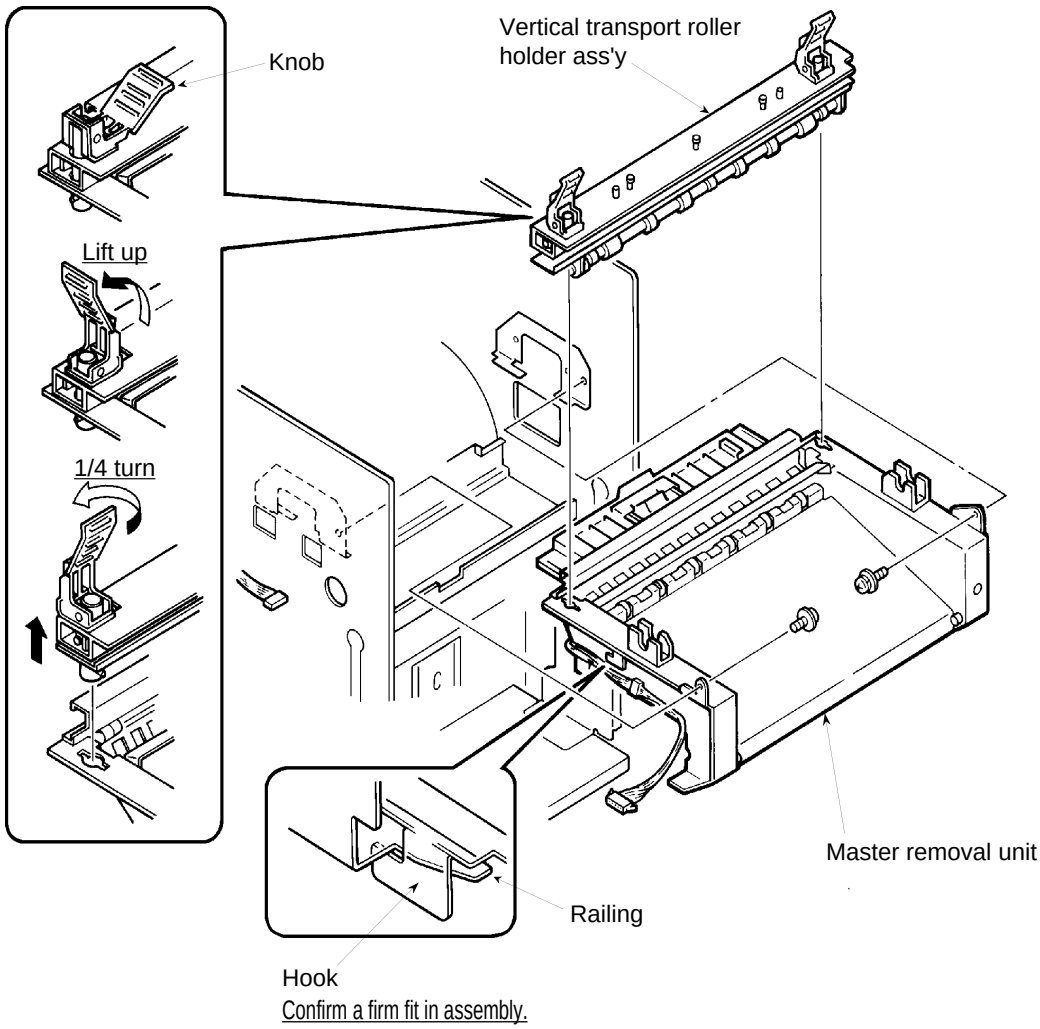
10. Master Removal Unit <GR1750/1700>

< Removal Procedure >

1. Turn OFF the power and pull out the Master disposal box from the machine.
2. Remove the Back cover and disconnect the wire harness connector of the Master removal unit.
3. Remove two mounting screws on the Master removal unit.
   [Note]
   If required, lift and make a quarter turn on the two Knobs on the Vertical transport roller holder ass'y to free the ass'y from the Master removal unit.
4. Pull the unit towards the paper feed side to unlock the hooks at the bottom of the unit.
   Tip the unit toward you and lift it out towards the paper feed side.

- Precautions in Assembly -

- Pass the wire harness of the Master removal unit through the hole of the side frame, before installing the unit into the machine.
- Make sure to lock the hooks at the bottom of the unit on the railings of the side frames.



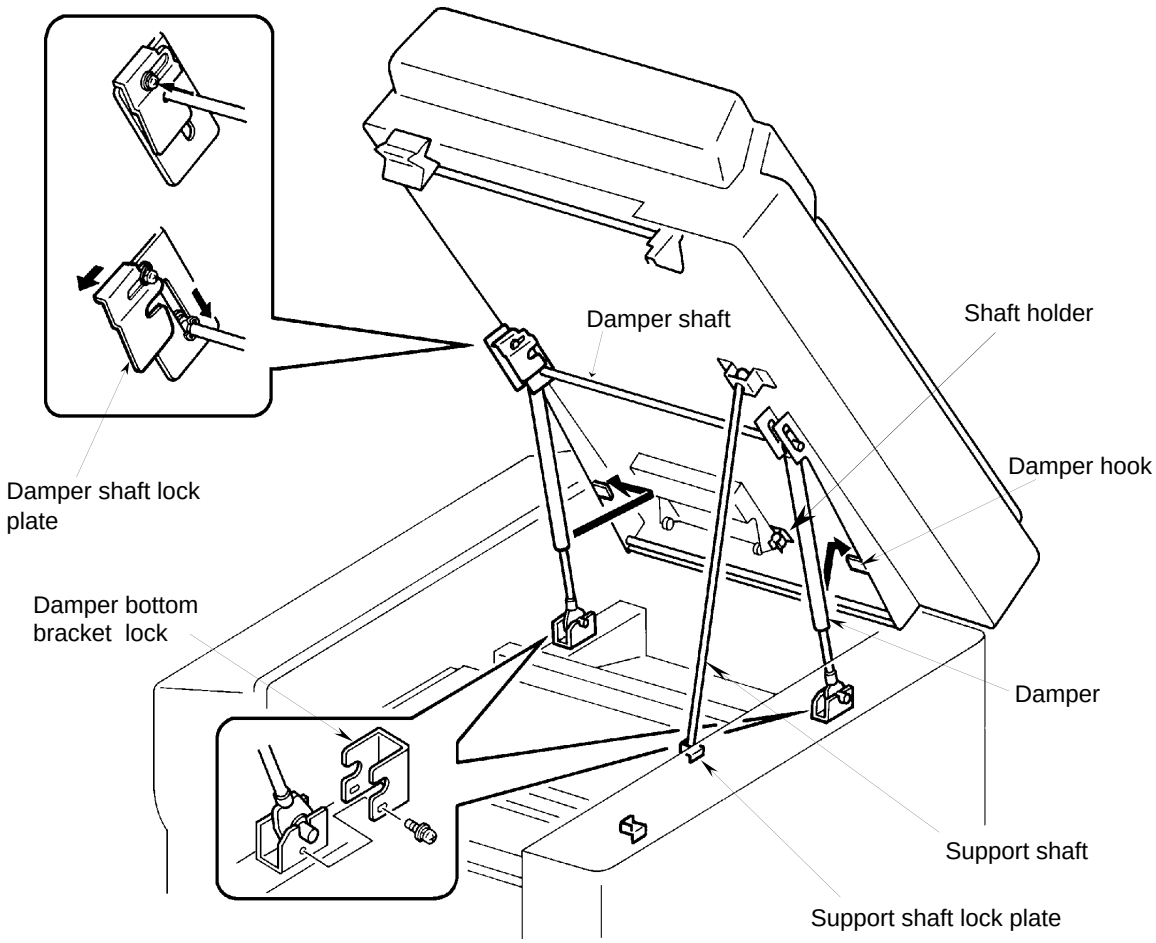
11. Master Removal Unit <GR3750/2750>

< Removal Procedure >

1. Turn OFF the power and open the Scanner table.
2. Loosen the screw on the Damper shaft lock plate and slide the plate to release the shaft.
3. Release the Support shaft from the Shaft holder, hook it to the lower Support shaft lock plate, while lifting the Scanner table.
4. Remove the mounting screws on the Damper bottom bracket lock plates and remove the brackets.
5. Hook the Dampers on the Damper hooks at the bottom of the Scanner table.
   [CAUTION]
   Don't open the Scanner table too high after releasing the Dampers, because the machine may be turned over by the weight of the Scanner table.
6. Remove the Master removal unit, referring to the instructions found on the next page.

- Precautions in Assembly -

- Ensure the Damper bottom Bracket Lock plates lock firmly on the brackets.



12. Master Removal Hook Sensor <GR>

< Removal Procedure >

1. Remove the Master removal unit, referring to the pages from VIII-15 to VIII-16.
2. Remove the sensor bracket mounting screw .
3. Disconnect the connector of the Master removal hook sensor.
4. Carefully remove the sensor from the bracket.

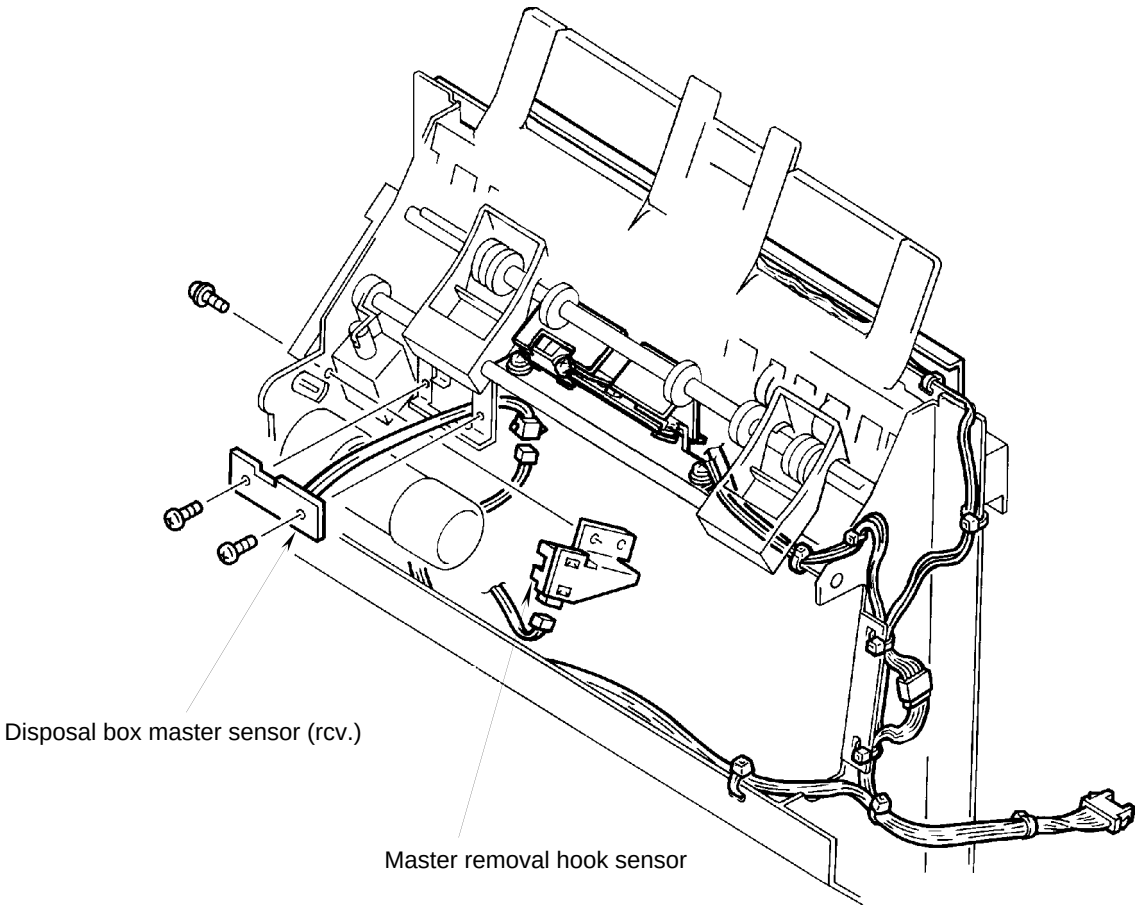
- Precautions in Assembly -

- Ensure positioning of the sensor so that the light path is blocked when the Master removal hooks are in the home position.

13. Disposal Box Master Sensor (Rcv.) <GR>

< Removal Procedure >

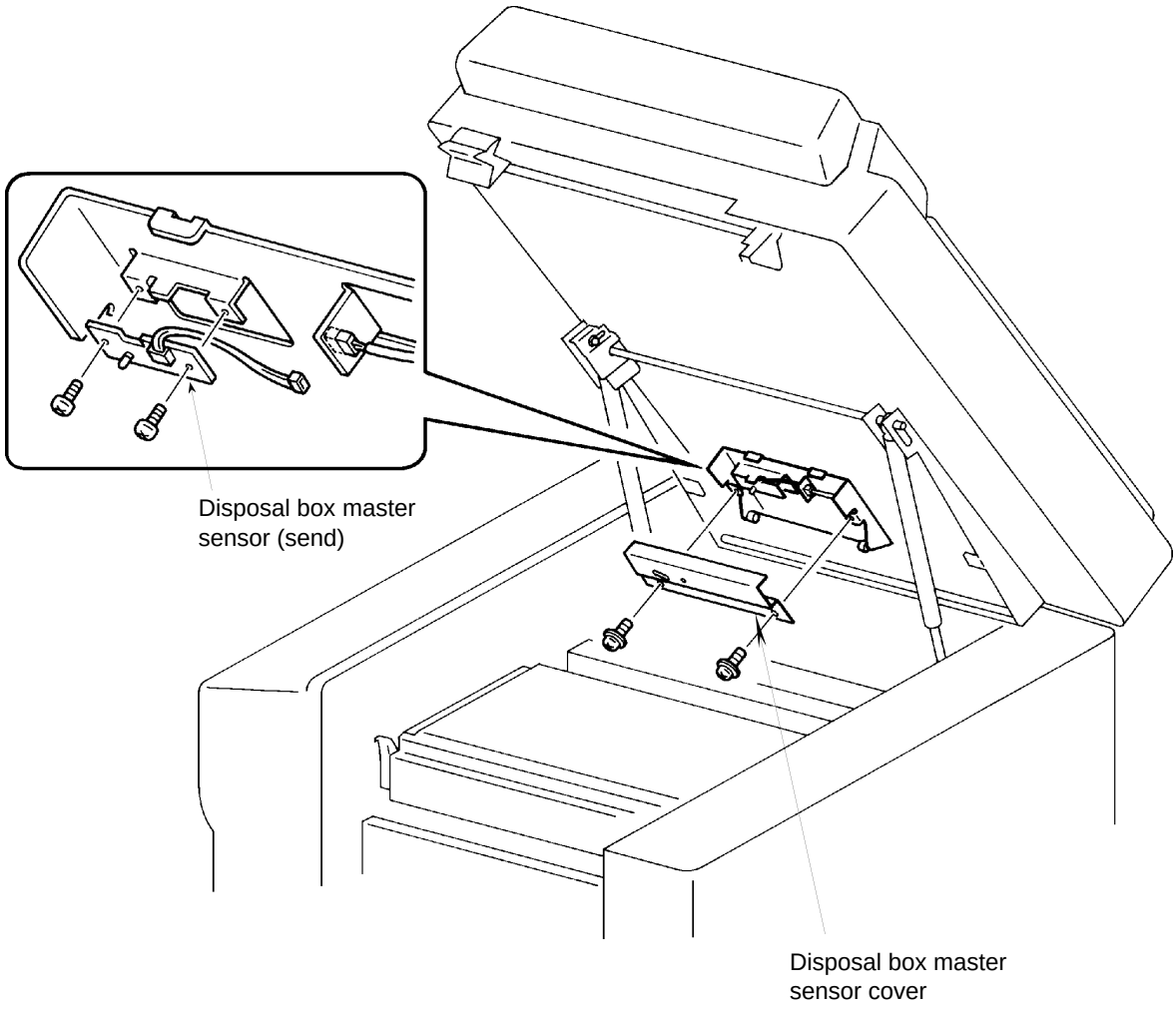
1. Remove the Master removal unit, referring to pages VIII-15 to VIII-16.
2. Remove the mounting screw on the Disposal box master sensor (rcv.) and disconnect the connector.



14. Disposal Box Master Sensor (Send) <GR3750/2750>

< Removal Procedure >

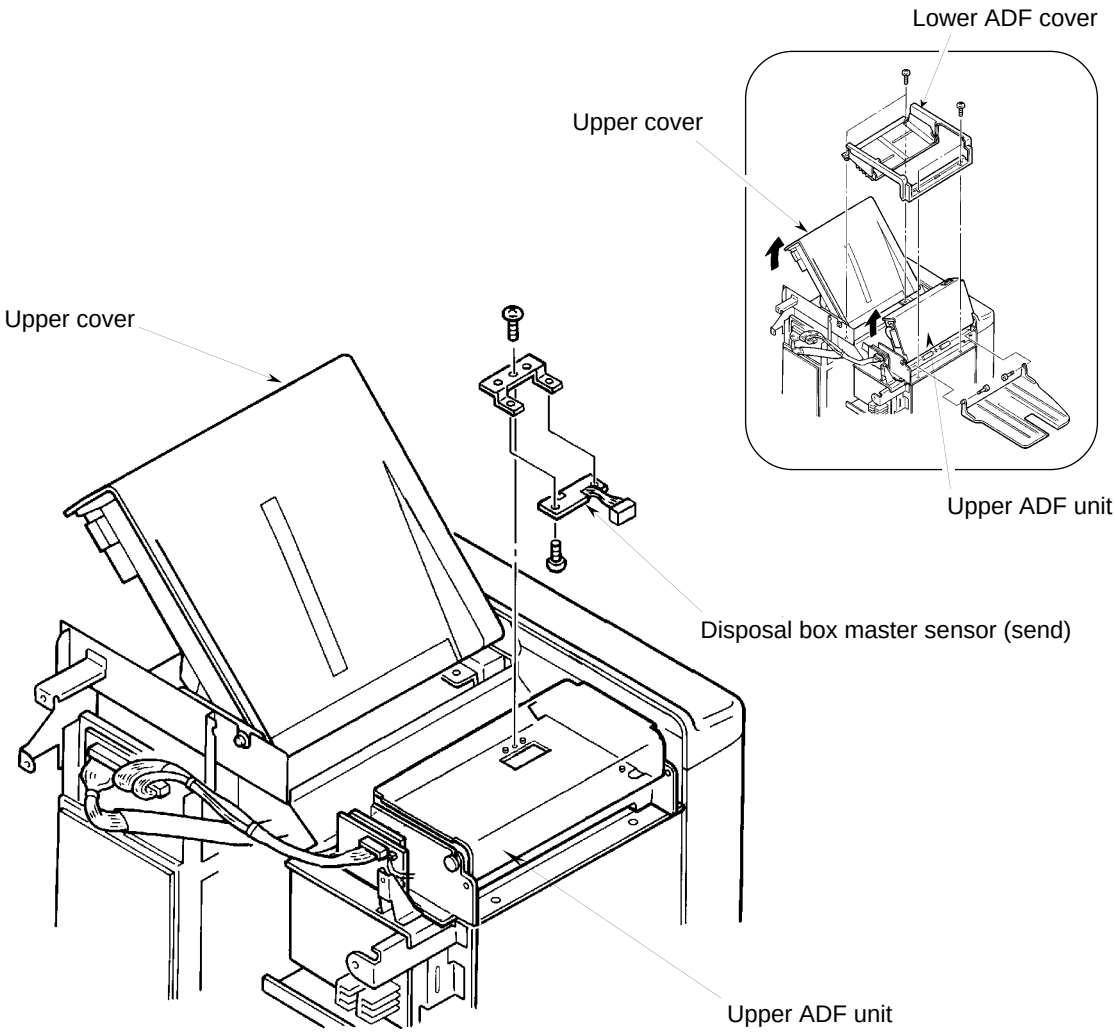
1. Turn OFF the power, open the Scanner table and remove the Master disposal box.
2. Remove the two mounting screws on the Disposal box master sensor cover and remove the cover.
3. Remove the two mounting screws on the Disposal box master sensor (send), disconnect the connector and remove the sensor.



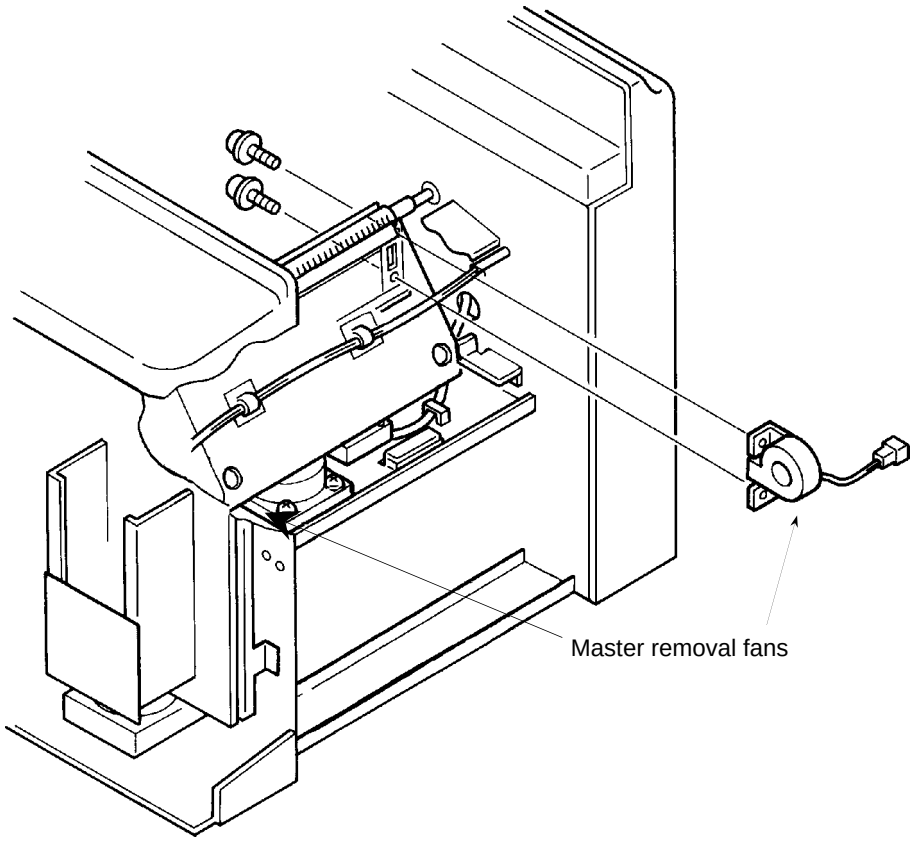
15. Disposal Box Master Sensor (Send) <GR1750/1700>

< Removal Procedure >

1. Turn OFF the power.
2. Open the Upper cover and Upper ADF unit.
   Remove four mounting screws on the Lower ADF cover and remove the cover, referring to page V-10 or sketch below.
3. Disconnect the connector of the Disposal box sensor (send) and remove one mounting screw of the sensor bracket, and remove the bracket with the sensor attached.
4. Remove the two mounting screws of the Disposal box master sensor (send) and remove the sensor from the bracket.



16. Master Removal Fan <GR>

< Removal Procedure >

1. Remove the Master roller holder unit, referring to page III-18.
2. Remove the two mounting screws of the Aero guide sheet and remove the sheet, referring to page IX-25.
3. Remove two mounting screws on the Master removal fan, disconnect and remove the first fan, repeat and remove the second Master removal fan.